



Consumer Federation of America

Testimony of

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**on behalf of
Consumers Union
and
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before the

**United States Senate
Committee on Commerce, Science and Transportation**

regarding the

Digital Television Transition

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Consumers Union¹ and Consumer Federation of America² appreciate the opportunity to testify on the transition from analog to digital television. The digital transition, as envisioned by the 1996 Telecommunications Act, has failed, requiring additional congressional action. That legislation will determine whether the transition to digital television will ultimately benefit American consumers with more programming and telecommunications choices, or whether it will impose billions in direct costs on consumers and exacerbate concentration in telecommunications markets.

To ensure the outcome is the former not the latter, any legislation that this Committee takes up on the digital transition must:

- Ensure that consumers do not bear the direct costs of the transition, which are estimated to be \$3.5 billion or more, or suffer from the loss of television signals they rightfully expect to receive;
- Promote market competition, rather than consolidation, through appropriate allocation of the 108MHz of returned spectrum to new entrants and smaller existing market players, particularly in the area of broadband wireless;
- Promote unlicensed, or open-market, use of spectrum by both commercial and non-commercial entities of a portion of either the reclaimed or digital spectrum to promote competition, foster advanced communications services, and bridge the digital divide by promoting universal, affordable access to broadband Internet; and
- Prevent further concentration of local media markets by addressing ownership restrictions for dominant local broadcast outlets in the post-transition, digital environment.

We look forward to working with members of the Committee to ensure that any legislation on the digital television transition incorporates these core consumer provisions. We elaborate on these critical needs below.

Hold Consumers Harmless

Consumers buy televisions with the reasonable expectation that they will be able to receive free over-the-air television broadcasts over the life of their televisions. And that life can be substantial. Research from *Consumer Reports* shows that televisions are the workhorses of consumer electronics: they last for decades. Even today, as Congress focuses on a hard digital television transition date, millions of consumers are buying new analog sets on the assumption

¹ Consumers Union is a nonprofit membership organization chartered in 1936 under the laws of the state of New York to Provide consumers with information, education and counsel about good, services, health and personal finance, and to initiate and cooperate with individual and group efforts to maintain and enhance the quality of life for consumers. Consumers Union's income is solely derived from the sale of *Consumer Reports*, its other publications and from noncommercial contributions, grants and fees. In addition to reports on Consumers Union's own product testing, *Consumer Reports* with more than 5 million paid circulation, regularly, carries articles on health, product safety, marketplace economics and legislative, judicial and regulatory actions which affect consumer welfare. Consumers Union's publications carry no advertising and receive no commercial support.

² The Consumer Federation of America is the nation's largest consumer advocacy group, composed of over 280 state and local affiliates representing consumer, senior, citizen, low-income, labor, farm, public power and cooperative organizations, with more than 50 million individual members.

they will work for years to come. A federally mandated transition to digital turns that assumption on its head: for consumers relying on over-the-air broadcasts, their sets will be useless for their primary purpose.

An artificial, government-imposed mandatory transition to broadcasting solely using digital signals will create, at a minimum, a monumental inconvenience for consumers who will be forced to purchase a costly converter box to ensure their televisions will keep working. And if Congress gets this wrong, the transition will not merely inconvenience consumers, which is nuisance enough, it will impose on them direct costs of \$3.5 billion or more.

Therefore, any conversion to digital television must ensure that the analog sets now in use will continue to function after the transition without imposing additional costs on consumers.

The number of consumers that could be left in the dark by the digital transition is substantial. New consumer research conducted by Consumers Union and the Consumer Federation of America³ shows that about four in ten American households, or about 42 million households, continue to rely on about 80 million over-the-air televisions (OTA-only sets) for some or all of their television viewing. Given very low sales of digital-ready televisions in recent years, virtually all of these sets are likely to be capable of receiving only analog signals.

Of the 42 million households with OTA-only sets, about 16 million rely **solely** on about 35 million over-the-air televisions to watch television programming. The remaining 26 million households with OTA-only sets are those that subscribe to cable and satellite services but also rely on up to an additional 45 million OTA-only sets—those not connected to the subscription service but used for over-the-air broadcast program viewing. These are sets that are used, for example, in the kids' rooms, the kitchen, the home office, and so forth. For cable/satellite households, our estimates explicitly excluded unconnected sets that were NOT used at all for broadcast viewing.

We present these estimates not as exact numbers of households and analog sets directly affected by the transition, but rather as an indicator of what the “real” numbers are likely to be. There has been substantial confusion over the number of over-the-air reliant households to which Congress will need to provide compensation for the costs of converter boxes required to keep their otherwise fully functional TV sets working. At the high end were estimates by the National Association of Broadcasters and the Government Accountability Office that found 73 million over-the-air sets in use. At the low end were estimates by the Consumer Electronics Association that found only 33 million such sets. Based on our research, we believe the latter estimate dramatically understates the number of over-the-air reliant sets and that the NAB/GAO estimates are more likely in line with reality. Even after adjusting the NAB estimates by different assumptions, such as the number of sets per households, 65 million represents the lower bound estimate of the number of OTA sets in American households.

As Congress considers whether and how much to compensate consumers for the costs imposed on them by the government-mandated transition, CU and CFA believe it should allocate proceeds from the auction of reclaimed spectrum to a compensation program in an amount which reflects the number of OTA-only sets and OTA-only households at the higher end of estimates

³Attachment A, Estimating Consumer Costs of a Federally Mandated Digital TV Transition. June 29 2005, Consumer Federation of America / Consumers Union.

provided to date. Relying on lower estimates could lead Congress to understate the number of households affected, the total costs to consumers and the level of the compensation necessary to hold consumers harmless from the congressionally mandated transition to digital television.

Based on higher estimates of OTA-only sets and the GAO's estimate of a cost of \$50 per converter box, the federally imposed, mandatory transition to digital TV could impose costs of \$3.5 billion or more on consumers just to keep their sets working.

As shocking as these aggregate numbers are, the costs to individual households will likewise be substantial. The digital conversion effectively increases the cost of television sets consumers have already purchased. According to the Consumer Electronics Association, a 25-inch television—the most popular set—sells, on average, for about \$200. A \$50 converter box effectively increases the cost of that set by 25 percent. The costs of smaller sets selling for \$100 would effectively increase by 50 percent. Given that, according to both our estimates and those of the GAO, the average over-the-air household has two televisions, the costs for them are double—effectively a consumer tax of \$100 or more just to facilitate a transition that benefits broadcasters, equipment makers, retailers and other industry players.

While we support proposals that attempt to hold cable and satellite subscribers harmless by providing for down-conversion of digital signals, down-conversion does not address unconnected analog sets in cable and satellite subscriber-households. As noted above, the some 25 million households that fall into this category have reasonable expectations that those sets will continue to work. These households, as well as those that rely solely on over-the-air programming, should be compensated for the costs of the converter boxes required to keep these sets working.

We hope Congress agrees that this is an unacceptable cost for consumers to bear, regardless of their income, just to be able to view over-the-air broadcasts their sets used to receive.

Therefore, we urge Congress to establish and fully fund a program that will compensate **all** households that continue to rely on over-the-air sets for the full costs of digital-to-analog converter boxes required to keep sets functioning. Even using the conservative estimate of spectrum auction revenue of \$10 billion that the digital transition facilitates, the Committee would be able to both meet its budget reconciliation obligations and fully compensate all households with over-the-air reliant sets for the costs of converter boxes.

This principle is not new to Congress. The Commercial Spectrum Enhancement Act (CSEA), enacted in 2003, has been instrumental in encouraging the development of new uses for spectrum. But that law also stipulates that auction proceeds must cover 110 percent of the costs of relocation. For DTV transition legislation, the Committee therefore should adopt a principle similar to that embodied in the CSEA. Consumers have not demanded or driven this transition, which largely benefits others, and they should not be asked to bear its costs. According to the New American Foundation, sales of televisions with digital broadcast tuners represented just four percent of all televisions sales in 2004, suggesting consumer demand for digitally broadcast television is quite small. Indeed, the transition largely benefits other parties: the broadcasters who requested the transition in the first place; the electronics manufacturing industry which will sell millions of converter boxes and expensive digital televisions; and the dominant

telecommunications providers that seek licenses for the additional spectrum freed by the transition.

The digital transition may, if managed appropriately, provide significant public benefits. But, unquestionably, it will be viewed as an abject failure by consumers if they are forced to bear the costs of acquiring digital-to-analog converter boxes or face the equally unpalatable alternative of losing access to over-the-air television.

Promote Market Competition with Licensed and Open-Market Spectrum

Congress has the unique and important opportunity during this transition to ensure that reclaimed spectrum will be used to facilitate robust competition in the broadband market—providing new opportunities for smaller companies, new market entrants and other wireless providers to access valuable spectrum that will allow them to better serve their customers and effectively compete in the marketplace.

Statistics supplied by the Federal Communications Commission and J.P. Morgan show that the high-speed data marketplace is highly concentrated; in fact, it has become a cozy duopoly. Cable providers and telephone companies have each divided and conquered their markets and don't compete against each other outside of their territories. As a result of weak competition, broadband penetration in the U.S. is proceeding at a slower rate than many other countries—the U.S. now ranks 16th in the world. Without competitive alternatives, broadband Internet access will remain a service available only to consumers in those markets deemed desirable by dominant providers—and then only at the high prices these monopoly providers demand. Rural and low income communities are left behind. Spectrum policies adopted as part of the digital transition can remedy the problem or exacerbate it.

A quick glance at the remaining alternatives demonstrates that it is up to Congress, through the spectrum policies it designs in any digital transition legislation, to provide new competitive opportunities in broadband.

- **Broadband over Power Lines (BPL) and community fiber-to-the-home (FTTH):** BPL is an exciting new technology that delivers broadband over a wire already available in nearly every home in the country—electrical wiring. Though its rollout has been limited to date, it offers significant potential for the delivery of affordable, high speed Internet. Similarly, FTTH uses fiber initially laid by utilities for their own purposes, like meter-reading to deliver broadband services. In some communities, publicly owned utilities are offering high-speed Internet through BPL and FTTH. Unfortunately, despite the enormous potential for these technologies to facilitate universal broadband access, more than a dozen states have erected roadblocks—or even banned—communities and the utilities they own from providing these advanced services. These roadblocks—and federal preemption efforts like those already introduced in the House of Representatives—could prevent BPL and FTTH from providing ubiquitous access to broadband Internet.
- **Wireless Broadband (Wi-Fi):** Wi-Fi, offered today by many by Wireless Internet Service Providers (WISPs) across many of America's cities and towns, uses a limited band of unlicensed, or open-market spectrum that was originally allocated to it because no one else

wanted this “junk band.” Wi-Fi is now relied upon by millions for their primary broadband connectivity, and millions more for secondary, mobile connectivity.

Importantly, the costs of providing wireless broadband appear to be significantly lower than wired solutions, keeping costs to consumers affordable. Today, consumers enjoy wireless broadband services for as little as \$15 per month—less than half the cost of most wired broadband services offered by telephone or cable companies. Those dominant providers also typically require consumers to purchase bundled services—telephone or cable service—in order to receive broadband access, or charge much higher rates for unbundled broadband Internet.

Wi-Fi is already an economic generator for thousands of small and mid-sized businesses that provide “hot spots” in places where people gather like coffeeshops, conference centers and airports. But companies, communities and non-profits are also using Wi-Fi to connect parks, neighborhoods, and even to entire cities and towns. NYCWireless, a New York non-profit, provides affordable wireless service to Bryant Park in Midtown Manhattan. Now it's working with churches and community groups to provide service in Harlem neighborhoods and housing developments. Tribal Digital Village is a network of 18 tribal villages east of San Diego. It delivers high-speed Internet service to many community centers in their area, and uses the bandwidth for language preservation programs. It is currently developing a web portal that meets local needs. Tribal youth even train adults how to use the technology, benefiting everyone. The Alaska Marine Highway System, a project of the Department of Transportation uses Wi-Fi to connect its ships to their network when they are at sea.

Wi-Fi offers great promise for providing ubiquitous broadband access across the nation. This is particularly important for rural or underserved urban markets, where existing cable or DSL providers are not offering service. But equally important, wireless providers can offer an affordable competitive alternative to areas that have access only to a single high-priced, monopoly provider.

But the growth potential of this now \$10 billion industry is limited because under current licensing schemes, Wi-Fi is limited to the unlicensed 2.4 and 5GHz bands—spectrum that does not allow signals to pass easily through obstacles, such as trees or walls. These bands are also extremely crowded; Wi-Fi shares this spectrum with hundreds of consumer electronic devices. In order for wireless broadband to become an option for more Americans, providers need access to unlicensed low-frequency spectrum below 1 GHz—less crowded spectrum with propagation characteristics that allow it to travel through buildings, mountains and other obstacles.

It is imperative that the American public is able to better utilize the two incredibly valuable, publicly owned blocks of spectrum, which today are under the near-exclusive control of the broadcasting industry at no-cost to them: the digital band below 698 MHz which broadcasters will retain; and the 700 MHz band, which will be reclaimed after the transition.

As part of the digital transition, Congress must ensure that both reclaimed and digital spectrum will be used to foster universal access to broadband and foster stronger market competition. We offer the following recommendations:

1. Promote Improved Competition Through Spectrum Auction Policy

If the merger between Sprint and Nextel is approved, just three companies will dominate the wireless industry. The owners of two of those wireless companies—Verizon Wireless and Cingular—are near-monopoly telephone companies that also dominate local and long-distance calling throughout the United States. Other, smaller wireless companies remain minor players that lack the spectrum needed to compete and match services over the long-term.

But if rights to the valuable spectrum that will be freed up by the transition are available only to the dominant wireless carriers as smaller players are priced out of the market, the auctions will only make a badly concentrated market even less competitive—undercutting quality of service, reducing choices and inflating prices. Without the proper safeguards in place, Congress virtually ensures the auctioning of spectrum to dominant providers that already control the bulk of this concentrated market and who will be unlikely to offer more affordable wireless Internet services that compete with their wired offerings.

Newly available spectrum could be used for wireless broadband in rural and urban communities. Even licensed options could be new alternatives to the incumbents for high-speed Internet access. The Congress should ensure that of the estimated 60 MHz to be returned and offered at auction, adequate spectrum is set aside for auction to new market entrants and small existing players. Doing so will put pressure on the largest market players to compete, resulting in lower consumer prices, higher quality, and expanded choices.

2. Promote Universal Access to Broadband by Allocating Spectrum for Unlicensed Use

Congress also has a unique opportunity during the transition to use portions of the returned spectrum to grow unlicensed, or open-market, uses of spectrum. Open market spectrum expands the ability of ordinary citizens to use and share the public airwaves. But the potential to further expand the ability of people to use their airwaves is constrained by relegating unlicensed use to higher-frequency “junk bands.”

As noted above, the “junk bands” were given this moniker precisely because the signals that can be transmitted at these frequencies are limited—they do not pass easily through walls or trees like TV signals do. And many other devices—like garage door openers, microwaves and cordless phones—use the same space.

If the principle of sharing the spectrum in a non-interfering manner is extended to portions of lower frequency spectrum below 1 GHz, the potential to deliver wireless broadband and other communications services at lower costs will expand dramatically. Congress can and should expand the space in which the unlicensed or noncommercial use of the airwaves is encouraged and allowed. It can do so in following ways.

- First, it should set aside a portion of the reclaimed spectrum to be dedicated for unlicensed use. A set-aside of 18 to 20 MHz of recovered spectrum on a nationwide basis would open adequate space to promote unlicensed uses.

- Second, it can set aside a small part of the digital spectrum for unlicensed use by allowing non-interfering use of white spaces or through appropriate assignment of new digital channels. Congress cannot ignore the fact that the digital spectrum is the largest part of the spectrum made available to private entities not subject to auction.⁴ With the windfall provided to broadcasters in the 6MHz they will be allowed to retain, broadcasters will be able to provide six or more digital channels—far more than ever anticipated when Congress enacted the 1996 Telecommunications Act—where they previously offered one.

Fortunately, the digital spectrum can be allocated in a manner that enables broadcasters to offer a full slate of digital multicasts while leaving enough room for unlicensed wireless internet services in these low frequency bands;

These proposals for unlicensed use of the digital bands could be particularly effective in encouraging wireless broadband deployment in rural areas where more white space is available and fewer channels are occupied. Under current rules and proceedings, the Federal Communications Commission has moved only haltingly to expand the non-interfering uses of the spectrum. A clear public policy promoting the non-interfering use of spectrum would speed the process along and allow unlicensed sharing of spectrum to advance much more rapidly.

The unlicensed use of even a small portion of newly available spectrum would provide untold public benefits. Among many, the most notable is the opportunity to support expansion of community wireless Internet services, offering perhaps the first meaningful opportunity for bridging the digital divide that has confounded policy makers for more than a decade.

Address Media Ownership

At a time when concerns about competition, cost and diversity of programming have prompted a revisiting of media ownership rules, the DTV transition could worsen the problem in local markets. Congress should not ignore the serious implications digital transmission has on media concentration.

We have significant concerns about the power provided to local news companies that already own and control local newspapers and radio stations being provided with the capacity to offer six or more digital channels where they previously offered one.

Though all local broadcasters will receive the same new digital capacity, they cannot all take equal advantage of it. Only a few stations in any market currently produce or offer local news. Those that do will gain even more market control in a multicast digital environment.

A Consumers Union/Consumer Federation of America study of station ownership between 1975 and 2000, found that the number of television station owners fell from 540 to 360 and the overall number of stations rose. But the number of TV newsrooms declined during this same period. In fact, only half of all broadcast TV stations provide news. Stations with

⁴ Certain parts of the spectrum have been set aside or assigned for public governmental uses, like defense, safety and education, and not subject to auction. The original cellular licenses were also given to licensees.

newsrooms, particularly those affiliated with large news conglomerates, will be better able to utilize the additional digital capacity, dominating local news carriage, reducing diversity of news and information, and increasing the volume and impact of a single owner's voice in the news marketplace in their community.

To address this problem, Congress should:

- o prevent broadcasters from holding two television licenses in a community; and**
- o prevent television broadcasters from also owning a daily newspaper in the same market.**

In 2003, millions of Americans, a bipartisan coalition from the House, a majority of the Senate and leaders from both parties raised concerns about media conglomerates owning two stations in most markets, or three stations in the largest ones. Unless Congress acts to prevent it, the digital transition has the very real potential to substantially increase the ability of a few broadcast giants to dominate local news markets nationwide.

Serving the Public Interest

In exchange for the privilege of free and exclusive use of the public airwaves, broadcasters must serve the "public interest, convenience and necessity" through the fulfillment of public interest obligations, such as the provision of educational, civic, political and other programming. Among many shortcomings of these obligations, however, has been the ability of the broadcasters themselves to define what constitutes programming in the public interest. In addition, compliance with overly vague obligations is difficult both to verify and enforce. In short, these obligations have failed to serve the public.

The FCC should hold broadcasters accountable for their public interest obligations, both now and after the DTV transition, preferably through quantifiable and enforceable requirements. These are worthy goals and they should be met. However, given the historical and inevitable shortcomings of these obligations, improvements to the public interest obligation in any digital transition legislation will be insufficient to adequately serve the public interest.

Such provisions are neither an effective nor equivalent substitute for legislative requirements allocating spectrum to promote market competition and unlicensed use or for requirements allocating a portion of retained spectrum for independent local news, information, or entertainment programming. Setting aside a portion of the airwaves for unlicensed, open use would expand the ability of people to speak with electronic voices in a manner that promotes free speech rights more dramatically than any single act Congress has taken since exclusive licenses were introduced.

There is little debate that, to date, the imposition of vague obligations on broadcasters has failed the public interest. In order to meet public needs, Congress must address the critical competitive, diversity and ownership concentration issues we have raised in our testimony through the effective, equitable and appropriate allocation of one of the most valuable publicly

owned resources—radio spectrum. If Congress takes these steps, it will provide far more meaningful public benefits than any improvement to public interest obligations can offer.

Summary

Consumers will not thank Congress for digital television if it also means they have Congress to thank for the cost of inconvenience of paying for converter boxes out of their own pockets or the higher prices of new TVs, computers, or equipment to integrate their home entertainment systems. The enormous costs of the digital transition should be paid for by the ample proceeds generated by the auction of reclaimed spectrum and by the many industry players that will profit from this transition.

Digital television is a positive technology that has the potential to benefit consumers and the public as a whole. But that potential can only be realized through the appropriate spectrum policies adopted as part of the transition that promote competition and innovation in the telecommunications market that will lower prices, improve service and expand choices for consumers.

We look forward to working with the Committee in stimulating a rapid transition to digital television broadcasting and to craft legislation that will resolve these important issues for both consumers and affected industries.